

1 CLAIMS

2 I (We) claim:

3 1. In a portable surface cleaning machine for moving over a  
4 surface to be cleaned and producing a pressurized cleaning  
5 spray directed onto the surface, said machine including an  
6 elongated spinner bar having a first end, a second end, and a  
7 rotary mount therebetween, said spinner bar adapted to rotate  
8 in a plane parallel to the surface to be cleaned, the  
9 improvement comprising a first array of spray nozzles at said  
10 first end and a second array of spray nozzles at said second  
11 end, said first array and said second array each having an  
12 outermost nozzle and an inner nozzle, said outermost nozzle and  
13 said inner nozzle being adjustable, said outermost nozzle and  
14 said inner nozzle inclined at an angle to said plane for  
15 producing rotation of said spinner bar whereby the cleaned area  
16 has a uniform appearance.

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18 2. In a portable surface cleaning machine of claim 1,  
19 said improvement further comprising said first array and said  
20 second array each including at least two inner spray nozzles,  
21 said inner spray nozzles having the same angle of inclination.

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23 3. In a portable surface cleaning machine of claim 2, said  
24 improvement further comprising said outermost nozzle having a

1 different angle of inclination than said inner nozzles.

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3 4. In a portable surface cleaning machine of claim 2, wherein  
4 said outermost nozzle angle of inclination is between 65 and 77  
5 degrees with respect to said cleaned surface.

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7 5. In a portable surface cleaning machine of claim 1, said  
8 improvement further comprising said outermost nozzle having a  
9 different angle of inclination than said inner nozzle.

10  
11 6. In a portable surface cleaning machine of claim 1, wherein  
12 said outermost nozzle angle of inclination is between 65 and 77  
13 degrees with respect to said cleaned surface.

14  
15 7. In a portable surface cleaning machine for moving over a  
16 surface to be cleaned and producing a pressurized cleaning  
17 spray directed onto the surface, said machine including an  
18 elongated spinner bar having a first end, a second end, and a  
19 rotary mount therebetween, said spinner bar adapted to rotate  
20 in a plane parallel to the surface to be cleaned, the  
21 improvement comprising a first array of spray nozzles at said  
22 first end and a second array of spray nozzles at said second  
23 end, said first array and said second array each having an  
24 outermost nozzle and an inner nozzle, said outermost nozzle

1 being adjustable, said outermost nozzle inclined at an angle to  
2 said plane of about 74 degrees and said inner nozzle inclined  
3 at an angle of about 80 degrees for producing rotation of said  
4 spinner bar whereby the cleaned area has a uniform appearance.

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6 8. In a portable surface cleaning machine of claim 7, said  
7 improvement further comprising said first array and said second  
8 array each including at least two inner spray nozzles, said  
9 outer spray nozzles having an angle of inclination of about 74  
10 degrees.

11  
12 9. In a portable surface cleaning machine of claim 7, wherein  
13 said inner spray nozzles include a 40 degree fan spray angle and  
14 said outer nozzles include a 65 degree fan spray angle.